



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,597	11/07/2001	Benjamin J. Levitt	BVOCP022A	8480
7590	09/20/2004		EXAMINER	
BE VOCAL 685 CLYDE AVENUE MOUNTAIN VIEW, CA 94043-2213				ALBERTALLI, BRIAN LOUIS
		ART UNIT	PAPER NUMBER	2655

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/005,597	LEVITT ET AL.	
	Examiner Brian L Albertalli	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-23 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 07 November 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Speech Recognition for Recognizing Addresses with Grammar.

2. This application filed under former 37 CFR 1.60 lacks the necessary reference to a prior application. A statement reading "This is a continuation-in-part of Application No. 09/894.164, filed 6/26/01." should be entered following the title of the invention or as the first sentence of the specification. Also, the current status of all nonprovisional parent applications referenced should be included.

Double Patenting

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 1-22 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-22 of copending Application No. 09/894164. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

5. Claims 1-22 are directed to the same invention as that of claims 1-22 of commonly assigned 09/894164. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2655

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-22 are provisionally rejected under 35 U.S.C. 102(e) as being clearly anticipated by copending Application No. 09/894,164 published as Patent Application Publication Number 2002/0099544 which has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfield*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(f) he did not himself invent the subject matter sought to be patented.

Claims 1-22 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. Claims 1-22 are claiming the same invention as copending Application No. 09/894,164 published as Patent Application Publication

Number 2002/0099544. The present application identifies Gaitonde as an inventor in addition to the identified inventors in Application No. 09/894,164, namely Levitt and Damiba. Accordingly, it appears from the record that Gaitonde did not invent the subject matter sought to be patented.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3, 5, 10-14, and 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Gadbois et al. (U.S. Patent 5,903,864). As cited in the specification (page 1, lines 20-22) “grammar” has been interpreted herein as “a representation of the language or phrases expected to be used or spoken in a given context”.

In regard to claims 1, 19, and 20, Gadbois et al. discloses a method, computer program product, and system for recognizing utterances, comprising:

(a) receiving an utterance including at least two components (Fig. 2, microphone receives utterance of “zipstate” 30 and “city” 32, column 4, lines 11-13);
(b) identifying matches between each of the components of the utterance and grammars (zipstate recognizer 34 recognizes the utterance against a vocabulary of numbers and states and city recognizer 41 recognizes the utterance against a vocabulary of valid cities, column 4, lines 15-20 and lines 32-36);

(c) combining each instance of a match of a first one of the components with each instance of a match of a second one of the components to generate a plurality of grammar expressions (the list of zipstates generated by zipstate recognizer 34 are used to generate a list of hypothesized cities 40 which are merged by city merger 44 with the list of cities 42 generated by city recognizer 41 to create a city list 45, column 4, lines 37-38); and

(d) recognizing the received utterance utilizing the grammar expressions (city list 45 is used as a vocabulary against which the city utterance is rerecognized 46, column 4, lines 38-43).

In regard to claim 2, Gadbois et al. discloses discarding duplicate grammar expressions. In the last table in column 8, Gadbois et al. discloses a hypothesized city list 40 generated from the recognition of the zipstate utterance 30. In the first table in column 9 is a list of cities 42 generated from the recognition of the city utterance 32. The second table in column 9 is the merged city list 44. Clearly, duplicate grammar expressions contained in the hypothesized city list 40 and the list of cities 32 (such as Somerville) are not both included in city list 44. Therefore, one instance of the grammar expression is discarded.

In regard to claim 3, Gadbois et al. discloses assigning a score to each of the grammar expressions (a ranked list of cities 47 is generated based on how closely the city in city list 45 matches the uttered city 32, column 4, lines 40-45).

In regard to claim 5, Gadbois et al. discloses a score-based priority of the grammar expression is stored in a list (a ranked list of cities 47 is generated based on how closely the city in city list 45 matches the uttered city 32, column 4, lines 40-45).

In regard to claim 10, Gadbois et al. discloses the utterance is representative of at least a portion of an address (zipstate utterance 30 is a zip code and state spoken as one word, the city utterance is a city, column 4, lines 11-15).

In regard to claim 11, Gadbois et al. discloses comparing the grammar expressions with a database of addresses (zipstate recognizer 34 recognizes the utterance against a vocabulary of numbers and states and city recognizer 41 recognizes the utterance against a vocabulary of valid cities, column 4, lines 15-20 and lines 32-36).

In regard to claim 12, Gadbois et al. discloses the grammar expressions are filtered based on the comparison using the database of addresses. Zipstate recognizer 34 recognizes the utterance against a vocabulary of numbers and states and city recognizer 41 recognizes the utterance against a vocabulary of valid cities (column 4, lines 15-20 and lines 32-36). Therefore, expressions that were not in either of the valid vocabularies would be filtered (not recognized).

In regard to claim 13, Gadbois et al. discloses the grammar expressions are output based on the comparison (word list 249 is displayed to the user as a choice list, column 10, line 67 through column 11, line 4).

In regard to claim 14, Gadbois et al. discloses the components of the utterance included a city and a state name of the address (zipstate utterance 30 includes a state name, city utterance 32 is a city, column 4, lines 11-15).

In regard to claim 17, Gadbois et al. discloses caching the results of the comparison (results from zipstate recognizer 34 are used to create city hypothesized city list 40, column 4, lines 25-31).

In regard to claim 18, Gadbois et al. discloses the cached results are used for recognizing subsequent utterances (city list 45 created from results of zipstate recognizer 34 are used to rerecognize 46 the city utterance, column 4, lines 38-43. The city utterance is subsequent to the zipstate utterance, see column 6, line 61).

In regard to claim 21 and 22, Gadbois et al. discloses a method and computer program product for recognizing utterances, comprising:

- (a) receiving an utterance indicative of an address (zipstate utterance 30);
- (b) recognizing the received utterance (zipstate recognizer 34 recognizes zipstate, column 4, lines 15-17);

(c) comparing results of the recognition with a database of addresses (each state is recognized against a vocabulary of states, column 4, lines 17-20); and

(d) discarding the results if the comparison fails (if the recognizer cannot recognize five digits and a state, the address is rejected as invalid, column 4, lines 20-24).

In regard to claim 23, Gadbois et al. discloses a method for recognizing utterances, comprising:

(a) receiving an utterance including at least two components, wherein the utterance is indicative of content (Fig. 2, microphone receives utterance of "zipstate" 30 and "city" 32, column 4, lines 11-13);

(b) identifying matches between each of the components of the utterance and grammars (zipstate recognizer 34 recognizes the utterance against a vocabulary of numbers and states and city recognizer 41 recognizes the utterance against a vocabulary of valid cities, column 4, lines 15-20 and lines 32-36);

(c) combining each instance of a match of a first one of the components with each instance of a match of a second one of the components to generate a plurality of grammar expressions (the list of zipstates generated by zipstate recognizer 34 are used to generate a list of hypothesized cities 40 which are merged by city merger 44 with the list of cities 42 generated by city recognizer 41 to create a city list 45, column 4, lines 37-38);

(d) scoring the grammar expressions (a ranked list of cities 47 is generated based on how closely the city in city list 45 matches the uttered city 32, column 4, lines 40-45);

(e) recognizing the received utterance utilizing the grammar expressions (city list 45 is used as a vocabulary against which the city utterance is rerecognized 46, column 4, lines 38-43);

(f) comparing results of operation (e) with a database of the content (ranked list of cities 47 is compared with city/zip code database 52, column 4, lines 51-54); and

(g) discarding the results based on the score and the comparison (ranked list of zipstates 56 is rejected if the distance from the first zipstate to the second zipstate is beyond an acceptable limit, column 5, lines 4-9).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gadbois et al., in view of Sasaki et al. (U.S. Patent 6,556,970).

In regard to claim 4 and 6, Gadbois et al. discloses presenting the grammar expressions in a priority based on the score (word list 249 is displayed to the user as a choice list, column 10, line 67 through column 11, line 4).

Gadbois et al. does not disclose the grammar expressions are played back for the user.

Sasaki et al. discloses playing back the grammar expressions in a priority based on the score (top three appropriate series of words are talked back to the user, column 8, lines 43-48).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Gadbois et al. to audibly play back the best ranking grammar expressions, so a display would not be needed to present the best ranking grammar expressions, thereby reducing the cost and complexity of the device used to implement the method.

In regard to claim 7, the combination of Gadbois et al. and Sasaki et al., as applied to claim 6, above, discloses in Sasaki et al. that the user is capable of rejecting the played back grammar expressions (the top three appropriate series of words are played for the user's confirmation. The user identifies the correct series of words, thereby rejecting the other two series of words, column 8, lines 46-51).

In regard to claim 8, the combination of Gadbois et al. and Sasaki et al., as applied to claim 6, above, discloses in Sasaki et al. that the user is capable of rejecting

the played back grammar expressions. The rejected grammar expressions are not stored and are, therefore, discarded (column 8, lines 43-51).

In regard to claim 9, Gadbois et al. discloses the rejected grammar expressions are stored in a list. The ranked list of cities 47 includes all candidate expressions, including both correct candidates, as well as rejected candidates (column 4, lines 40-45).

13. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gadbois et al., in view of Junqua (U.S. Patent 6,598,018).

Gadbois et al. discloses the speech recognition method can be performed whenever there are two or more utterances that include related data (column 17, lines 45-50).

Gadbois et al. does not disclose the components of the utterance include a street name and an address number of the address or the intersections of two streets.

Junqua discloses a method of recognizing utterances that utilizes grammars to aid in recognition. The grammars include street names, address numbers, intersections of two streets (column 4, lines 25-38).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Gadbois et al. so the two components of an utterance were address numbers and street names, or two street names corresponding to an intersection, so the method of recognizing two or more related utterances could be applied to a mapping

system that would be more accurate than a mapping system that attempted to recognize the two utterances without any relational data.

Conclusion

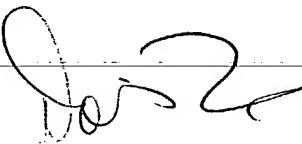
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ruhl (U.S. Patent 6,108,631) discloses a system for recognizing streets name sand locations. Zavoli et al. (U.S. Patent 6,598,016) discloses a system for recognizing speech, which corresponds to map data. Baker et al. (U.S. Patent 6,405,172) discloses a method of speech recognition that uses street address numbers and street names as grammars. Waibel et al. (U.S. Patent 5,712,957) discloses generating two n-best lists and comparing them to increase correct recognition results.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L Albertalli whose telephone number is (703) 305-1817. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703) 305-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 9/8/04



DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600